

### Listing of claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-26. (Cancelled)
- 27 (Cancelled)
- 28 (Cancelled)
- 29 (Currently amended) An isolated ~~The~~ nucleic acid molecule of ~~claim 28,~~ comprising a polynucleotide encoding amino acids 25 to 417 of SEQ ID NO:4.
- 30 (Previously presented) The nucleic acid molecule of claim 29, comprising nucleotides 73 to 1251 of SEQ ID NO:3.
- 31 (Cancelled)
- 32 (Cancelled)
- 33 (Currently amended) The nucleic acid molecule of claim 2932, comprising a polynucleotide encoding amino acids 1 to 417 of SEQ ID NO:4.
- 34 (Previously presented) The nucleic acid molecule of claim 33, comprising nucleotides 1 to 1251 of SEQ ID NO:3.
- 35 (Currently amended) The nucleic acid molecule of claim 2927, further comprising a heterologous polynucleotide.
- 36 (Previously presented) The nucleic acid molecule of claim 35, wherein said heterologous polynucleotide encodes a heterologous polypeptide.
- 37 (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 2927 into a vector.
- 38 (Currently amended) A vector comprising the nucleic acid molecule of claim 2927.
- 39 (Previously presented) The vector of claim 38, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

40 (Currently amended) A host cell comprising the nucleic acid molecule of claim 2927.

41 (Previously presented) The host cell of claim 40, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

42 (Previously presented) A method of producing a polypeptide which comprises culturing the host cell of claim 41 under conditions such that the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

43 (Cancelled)

44 (Cancelled)

45 (Currently amended) An isolated ~~The~~ nucleic acid molecule of ~~claim 44~~, comprising a polynucleotide encoding the mature amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97757.

46 (Cancelled)

47 (Cancelled)

48 (Currently amended) The nucleic acid molecule of claim 4547, comprising a polynucleotide encoding the complete amino acid sequence encoded by the cDNA clone in ATCC Deposit No. 97757.

49 (Currently amended) The nucleic acid molecule of claim 4543, further comprising a heterologous polynucleotide.

50 (Previously presented) The nucleic acid molecule of claim 49, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

51 (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 4543 into a vector.

52 (Currently amended) A vector comprising the nucleic acid molecule of claim 4543.

53 (Previously presented) The vector of claim 52, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

54 (Currently amended) A host cell comprising the nucleic acid molecule of claim ~~45~~43.

55 (Previously presented) The host cell of claim 54, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

56 (Previously presented) A method of producing a polypeptide which comprises culturing the host cell of claim 55 under conditions such that the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

57-121. (Cancelled)

122. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 1 to 22 in SEQ ID NO:2.

123. (Previously presented) The nucleic acid molecule of claim 122, further comprising a heterologous polynucleotide.

124. (Previously presented) The nucleic acid molecule of claim 123, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

125. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 122 into a vector.

126. (Previously presented) A vector comprising the nucleic acid molecule of claim 122.

127. (Previously presented) The vector of claim 126, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

128. (Previously presented) A host cell comprising the nucleic acid molecule of claim 122.

129. (Previously presented) The host cell of claim 128, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

130. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 129 under conditions such that ~~said~~the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

131. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 33 to 56 in SEQ ID NO:2.

132. (Previously presented) The nucleic acid molecule of claim 131, further comprising a heterologous polynucleotide.

133. (Previously presented) The nucleic acid molecule of claim 132, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

134. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 131 into a vector.

135. (Previously presented) A vector comprising the nucleic acid molecule of claim 131.

136. (Previously presented) The vector of claim 135, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

137. (Previously presented) A host cell comprising the nucleic acid molecule of claim 131.

138. (Previously presented) The host cell of claim 137 wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

139. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 138 under conditions such that ~~said~~the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

140. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 59 to 82 in SEQ ID NO:2.

141. (Previously presented) The nucleic acid molecule of claim 140, further comprising a heterologous polynucleotide.

142. (Previously presented) The nucleic acid molecule of claim 141, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

143. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 140 into a vector.

144. (Previously presented) A vector comprising the nucleic acid molecule of claim 140.

145. (Previously presented) The vector of claim 144, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

146. (Previously presented) A host cell comprising the nucleic acid molecule of claim 140.

147. (Previously presented) The host cell of claim 146, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

148. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 147 under conditions such that ~~said the~~ polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

149. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 95 to 112 in SEQ ID NO:2.

150. (Previously presented) The nucleic acid molecule of claim 149, further comprising a heterologous polynucleotide.

151. (Previously presented) The nucleic acid molecule of claim 150, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

152. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 149 into a vector.

153. (Previously presented) A vector comprising the nucleic acid molecule of claim 149.

154. (Previously presented) The vector of claim 153, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

155. (Previously presented) A host cell comprising the nucleic acid molecule of claim 149.

156. (Previously presented) The host cell of claim 155, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

157. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 156 under conditions such that ~~said~~ the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

158. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 179 to 190 in SEQ ID NO:2.

159. (Previously presented) The nucleic acid molecule of claim 158, further comprising a heterologous polynucleotide.

160. (Previously presented) The nucleic acid molecule of claim 159, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

161. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 158 into a vector.

162. (Previously presented) A vector comprising the nucleic acid molecule of claim 158.

163. (Previously presented) The vector of claim 162, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

164. (Previously presented) A host cell comprising the nucleic acid molecule of claim 158.

165. (Previously presented) The host cell of claim 164, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

166. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 165 under conditions such that ~~said~~ the

polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

167. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 196 to 205 in SEQ ID NO:2.

168. (Previously presented) The nucleic acid molecule of claim 167, further comprising a heterologous polynucleotide.

169. (Previously presented) The nucleic acid molecule of claim 168, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

170. (Previously presented) A method of producing a vector which comprises inserting the nucleic acid molecule of claim 167 into a vector.

171. (Previously presented) A vector comprising the nucleic acid molecule of claim 167.

172. (Previously presented) The vector of claim 171, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

173. (Previously presented) A host cell comprising the nucleic acid molecule of claim 167.

174. (Previously presented) The host cell of claim 173, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

175. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 174 under conditions such that ~~said the~~ polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

176. (Cancelled)

177. (Currently amended) An isolated ~~The~~ nucleic acid molecule of ~~claim 176~~ comprising a polynucleotide encoding amino acids 25 to 201 of SEQ ID NO:4.

178. (Previously presented) The nucleic acid molecule of claim 177 comprising nucleotides 73 to 603 of SEQ ID NO:3.

179. (Currently amended) The nucleic acid molecule of claim ~~177~~176, further comprising a heterologous polynucleotide.

180. (Previously presented) The nucleic acid molecule of claim 179, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

181. (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim ~~177~~176 into a vector.

182. (Currently amended) A vector comprising the nucleic acid molecule of claim ~~177~~176.

183. (Previously presented) The vector of claim 182, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

184. (Currently amended) A host cell comprising the nucleic acid molecule of claim ~~177~~176.

185. (Previously presented) The host cell of claim 184, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

186. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 185 under conditions such that ~~said the~~ polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

187. (Cancelled)

188. (Currently amended) An isolated ~~The~~ nucleic acid molecule comprising a polynucleotide of claim 187 encoding amino acids 202 to 224 of SEQ ID NO:4.

189. (Previously presented) The nucleic acid molecule of claim 188 comprising nucleotides 604 to 672 of SEQ ID NO:3.

190. (Currently amended) The nucleic acid molecule of claim ~~188~~187, further comprising a heterologous polynucleotide.

191. (Previously presented) The nucleic acid molecule of claim 190, wherein said heterologous polynucleotide encodes a heterologous polypeptide.



192. (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim ~~188~~187 into a vector.

193. (Currently amended) A vector comprising the nucleic acid molecule of claim ~~188~~187.

194. (Previously presented) The vector of claim 193, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

195. (Currently amended) A host cell comprising the nucleic acid molecule of claim ~~188~~187.

196. (Previously presented) The host cell of claim 195, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

197. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 196 under conditions such that ~~said the~~ polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

198. (Cancelled)

199. (Currently amended) An isolated ~~The~~ nucleic acid molecule comprising a polynucleotide of claim 198 encoding amino acids 225 to 417 of SEQ ID NO:4.

200. (Previously presented) The nucleic acid molecule of claim 199 comprising nucleotides 673 to 1251 of SEQ ID NO:3.

201. (Currently amended) The nucleic acid molecule of claim ~~199~~198, further comprising a heterologous polynucleotide.

202. (Previously presented) The nucleic acid molecule of claim 201, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

203. (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim ~~199~~198 into a vector.

204. (Currently amended) A vector comprising the nucleic acid molecule of claim ~~199~~198.

205. (Previously presented) The vector of claim 204, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

206. (Currently amended) A host cell comprising the nucleic acid molecule of claim ~~199~~198.

207. (Previously presented) The host cell of claim 206, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

208. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 207 under conditions such that ~~said the~~ polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.

209. (Cancelled)

210. (Currently amended) An isolated ~~The~~ nucleic acid molecule comprising a polynucleotide of claim 209 encoding amino acids 342 to 408 of SEQ ID NO:4.

211. (Previously presented) The nucleic acid molecule of claim 210 comprising nucleotides 1024 to 1224 of SEQ ID NO:3.

212. (Currently amended) The nucleic acid molecule of claim ~~210~~209, further comprising a heterologous polynucleotide.

213. (Previously presented) The nucleic acid molecule of claim 212, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

214. (Currently amended) A method of producing a vector which comprises inserting the nucleic acid molecule of claim ~~210~~209 into a vector.

215. (Currently amended) A vector comprising the nucleic acid molecule of claim ~~210~~209.

216. (Previously presented) The vector of claim 215, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

217. (Currently amended) A host cell comprising the nucleic acid molecule of claim ~~210~~209.

218. (Previously presented) The host cell of claim 217, wherein said nucleic acid molecule is operably associated with a heterologous regulatory polynucleotide.

219. (Currently amended) A method of producing a polypeptide which comprises culturing the host cell of claim 218 under conditions such that ~~said~~the polypeptide encoded by said nucleic acid molecule is expressed, and recovering said polypeptide.